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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
KADING, JOSHUA A	
ART UNIT	PAPER NUMBER
2661	

DATE MAILED: 04/15/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/785,021	LEYN ET AL.
	Examiner	Art Unit
	Joshua Kading	2661

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 November 2004*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1, 3-7, 9-14, 17-20, and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent 5,640,388, Woodhead et al. (Woodhead).

3. Regarding claims 1, 9, 20, and 22, Woodhead discloses the method of claim 9 and the systems of claims 1, 20, and 22. Woodhead discloses, "system[s and method] for transmitting a bitstream, the system comprising: a first communication interface configured to receive the bitstream (*figure 5, element 120 shows a first interface receiving the data stream*), the bitstream including a timing relationship for data in a portion of the bitstream (*col. 18, lines 29-34 where the PCR is the timing relationship for the data in that packet*); a processing apparatus configured to a) process the video data in the bitstream portion in a manner that introduces jitter in the video data (*figure 4, element 112 as described in col. 9, lines 29-39 where there is at least one processing apparatus, such as a mux, that introduces the jitter; it should be noted that "variable delay" is the same as jitter as described in col. 6, line 55*) and b) create a timestamp including timing information, the timing information describing the timing relationship of the video data in the portion of the bitstream as the video data was received (*col. 9,*

lines 33-36 where PCRs are timestamps as described in col. 5, lines 20-21); and a second communication interface configured to transmit an output bitstream onto a channel, the output bitstream including the timestamp and the video data including jitter introduced by the processing apparatus (*figure 1 shows various packets containing the timestamp and col. 9, lines 29-32 the packets with the corresponding timestamps and introduced jitter*)."

4. Regarding claim 3, Woodhead discloses "the system of claim 2 further including a synchronization source configured to provide a reference time to the processing apparatus that is used in generating the timestamp (*figure 5, element 132 as described in col. 19, lines 6-8 where PCRs are timestamps as described in col. 5, lines 20-24*)."

5. Regarding claim 4, Woodhead discloses "the system of claim 2 wherein the processing apparatus includes a set of processing modules that may each create the timestamp (*figures 1 and 4 where each encoder is used to create a packet as shown in figure 1 with a timestamp*)."

6. Regarding claim 5, Woodhead discloses "the system of claim 2 wherein the processing apparatus is configured to add the timestamp to at least one packet in a set of packets included in the first bitstream (*col. 19, lines 5-12 where the new timestamp is replacing the old timestamp and thus it is added to at least one packet in the bitstream*)."

7. Regarding claim 6, Woodhead discloses "the system of claim 5 wherein the bitstream is an MPEG-2 compressed bitstream and the processing apparatus is configured to add the timestamp to a transport packet in the MPEG-2 bitstream (*col. 18, lines 30-col. 19, lines 1-12*)."

8. Regarding claim 7, Woodhead discloses "the system of claim 6 wherein the processing apparatus is configured to replace a synchronization byte in the bitstream with a new synchronization byte (*col. 19, lines 5-12 where a PCR by its definition of being a timestamp is used to synchronize the bitstream so that the output matches the input as closely as possible*), the new synchronization byte signalling the beginning of payload data for a payload portion of the bitstream (*figure 2 shows bitstreams with timestamps and as seen they signal the beginning of the payload of the packet*)."

9. Regarding claim 10, Woodhead discloses "the method of claim 9 further including adding a synchronization byte that signals the beginning of payload data for a packet included in the bitstream (*col. 1, lines 46-52 wherein the overhead information is effectively synchronization information by way of its described use*)."

10. Regarding claim 11, Woodhead discloses "the method of claim 10 wherein the bitstream includes a set of packets (*figure 4 where each shaded box represents a packet*) and the method further includes adding the timestamp to at least one packet in

the bitstream (*col. 19, lines 5-12 where the new timestamp is replacing the old timestamp and thus it is added to at least one packet in the bitstream*)."

11. Regarding claim 12, Woodhead discloses "the method of claim 9 further including receiving the bitstream from a second channel (*col. 18, lines 27-40 whereby demultiplexing the bitstream the dejitter device has effectively separated the packets into different channels, including a first and second channel*)."

12. Regarding claim 13, Woodhead discloses, "the method of claim 12 further including restoring the timing relationship of the data in the portion of the bitstream after processing has occurred using the timing information included in the timestamp (*col. 19, lines 50-57 whereby the outputted data stream has been restored, as much as possible, to the original transmit timing thus it has been restored after processing and col. 5, lines 20-24 describes the recovery using timestamps*)."

13. Regarding claim 14, Woodhead discloses "the method of claim 9 wherein the bitstream is an MPEG-2 compressed stream (*col. 18, lines 30-34*)."

14. Regarding claim 17, Woodhead discloses "the method of claim 14 further including adding a stream identifier to the bitstream (*figure 1, element 16 of each is a stream identifier*)."

15. Regarding claim 18, Woodhead discloses "the method of claim 9 wherein processing comprises one of multiplexing, re-multiplexing, de-multiplexing, encoding, transcoding, scrambling, and de-scrambling (*col. 18, lines 30-40 where the bitstream is at least de-multiplexed*)."

16. Regarding claim 19, Woodhead discloses, "the method of claim 9 wherein the processing is performed in real-time (*col. 1, lines 27-37 where the video stream and audio stream are inherently real-time when watching TV for instance*)."

Claim Rejections - 35 USC § 103

17. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

18. Claims 2 and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woodhead et al. in view of U.S. Patent 6,002,687, Magee et al. (Magee).

19. Regarding claims 2 and 23, Woodhead discloses the systems of claims 1 and 22. Woodhead further discloses, "the processing apparatus is configured to multiplex (*col. 9, lines 31-32*), re-multiplex (*col. 9, lines 29-39 whereby since the enter multiplexed already, the will have to be re-multiplexed at some point*), de-multiplex (*col. 9, lines 29-39 whereby since the enter multiplexed already, the will have to be de-multiplexed at some point*), encode (*col. 9, lines 29-31 where having to change to a different*

transmission standard means the data will have to be encoded), transcode (*col. 9, lines 29-31 where having to change to a different transmission standard means the data will have to be transcoded*)..."

20. However, Woodhead lacks what Magee discloses, "scramble (*col. 3, lines 3-7 where the data can have at least two forms of scrambling*), and de-scramble (*col. 3, lines 3-7 whatever is scrambled at the transmitting end must be de-scrambled at the receiving end*) the data."

21. It would have been obvious to one of ordinary skill in the art at the time of invention to scramble and de-scramble the data for the purpose encoding and decoding the data (*Magee, col. 2, lines 51-55*). A motivation for encoding and decoding data is to compress that data for transmission, thus saving system resources (*Magee, col. 3, lines 23-25*).

22. Claims 8, 15, 16, and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Woodhead et al. in view of U.S. Patent 6,323,789 B1, Lawrence.

23. Regarding claims 8 and 21, Woodhead discloses the system of claim 6 and the system of claim 20. However, Woodhead lacks what Lawrence discloses, "the second interface is configured to transmit the output bitstream according to a DVB/ASI protocol (*col. 1, lines 52-col. 2, lines 1-16*)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the DVB/ASI protocol for transmission for the purpose of allowing the data to be encoded into a word with more bits. The motivation

for encoding data to a higher bit count is so that more characters or additional functions can be implemented using the encoded data.

24. Regarding claim 15, Woodhead discloses the method of claim 14. However, Woodhead lacks what Lawrence discloses, "transmitting uses a DVB/ASI protocol (*col. 1, lines 52-col. 2, lines 1-16*)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the DVB/ASI protocol for transmission for the purpose of allowing the data to be encoded into a word with more bits. The motivation for encoding data to a higher bit count is so that more characters or additional functions can be implemented using the encoded data.

25. Regarding claim 16, Woodhead and Lawrence discloses the method of claim 15. However, Woodhead lacks what Lawrence further discloses, "the transmitting utilizes an 8B/10B encoding scheme (*col. 1, lines 52-col. 2, lines 1-16*)." It would have been obvious to one with ordinary skill in the art at the time of invention to include the 8B/10B encoding scheme for the purpose of allowing the data to be encoded into a word with more bits. The motivation for encoding data to a higher bit count is so that more characters or additional functions can be implemented using the encoded data.

Response to Arguments

26. Applicant's arguments filed 29 November 2004 have been fully considered but they are not persuasive.

27. Applicant argues that Woodhead is directed to a system that removes jitter before it reaches the receiving end and does not read on the amended claims because they disclose a system that adds jitter before the data reaches the receiving end. The examiner respectfully disagrees.

28. Although applicant is correct in stating that Woodhead does disclose a system that removes jitter, Woodhead also discloses a system that adds jitter (*figure 4, element 112*). As the claims are currently written, Woodhead fully reads on applicant's invention because at the very minimum there is no claim of where the jitter is added or when it has to be added. Further, it is well known in the art that a system must remove jitter before it can be of any use at the receiving end of a system. It is also well known that almost every component in a telecommunications system introduces some kind of delay (jitter). Therefore, any data that needs to have jitter removed, as in Woodhead, must have had it added at some point whether that be before or at the receiving end is dependent on the design of the system.

Conclusion

29. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

30. A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within

TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

31. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua Kading whose telephone number is (571) 272-3070. The examiner can normally be reached on M-F: 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau Nguyen can be reached on (571) 272-3126. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CHAU NGUYEN
SUPERVISORY PATENT EXAMINER
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Joshua Kading
Examiner
Art Unit 2661

April 11, 2005